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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/778,421 | 02/07/2001 | Osamu Kajino | 28569.8200 | 6898 |

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EXAMINER

EDUN, MOHAMMAD N

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,421

Applicant(s)

KAJINO ET AL.

Examiner

MUHAMMAD N EDUN

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 25 and 27-29 is/are allowed.
- 6) ☒ Claim(s) 16, 22 and 26 is/are rejected.
- 7) ☒ Claim(s) 17-21, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16, 22 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Koudo et al. (6,445,657).

Koudo et al. discloses the invention as claimed. Figs. 1-66 show the disk apparatus having: the motor (2) for rotating the disk (1); the optical head (5) for recording or reproducing information; the motor drive (70, see example in Fig. 15) for driving the motor (inherently including the drive current to the motor); the motor controller (48, 61, 62, 71-73) for setting the driving current ; the speed calculator (see column 38, lines 35-50) for calculating the rotational speed of the motor; and the determiner (see column 38, lines 55-63) for determining whether or not the rotation speed of the motor is within a range for recording or reproduction of information (target

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range), wherein when the determiner determines that the rotation speed of the motor is within range, the motor controller restricts the driving current (see column 38, lines 60-67, the spindle command switches such that the spindle is caused to free-run (at virtually a constant speed, see column 38, lines 18-28) taken to be the recited restriction of the driving current), as set forth in the claims 16, 22 and 26. See the apparatus and figures for further details relating to the limitations as set forth in the claims.

Allowable Subject Matter

Claims 1-15, 25 and 27-29 are allowed.

Claims 17-21, 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record alone or in combination does not teach or suggest the disk apparatus of claims 16 and 22 having the further limitations as set forth in claims 17-21, 23 and 24, and as disclosed in the specification. Further the prior art does not teach: the

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motor controlling device having the combination of elements with their recited structure, along with specific structure of the heat quantity calculator as set forth in claims 1-15; the disk apparatus having the specific structure and function of the determiner, in combination with recited elements, as set forth in claim 25; the disk apparatus having the recited structure, along with specific structure of the heat quantity calculator, temperature calculator and determiner, as set forth in claim 27; and the speed detection device having the specific structure and function of the speed calculator, as set forth in claims 28 and 29, and as disclosed in the specification.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okano (5,161,142) discloses a disk apparatus capable of controlling the rotational speed of the spindle motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUHAMMAD N EDUN whose telephone number is 703-308-1550. The examiner can normally be reached on FLEXITIME.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DORIS TO can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MUHAMMAD N EDUN
Primary Examiner
Art Unit 2655